



PUBLIC WORKS DEPARTMENT

# DOWNTOWN PARKING STRUCTURE CONDITION ASSESSMENT

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Lots 2, 6, 7, 10, 11, and Depot Lot Structures

## General Testing Procedures – Parking Structures

- Concrete coring
- Testing for Chloride Content and strength of concrete



## General Testing Procedures – Parking Structures



14a. Top (left) and bottom (right) ends of the core, as received.



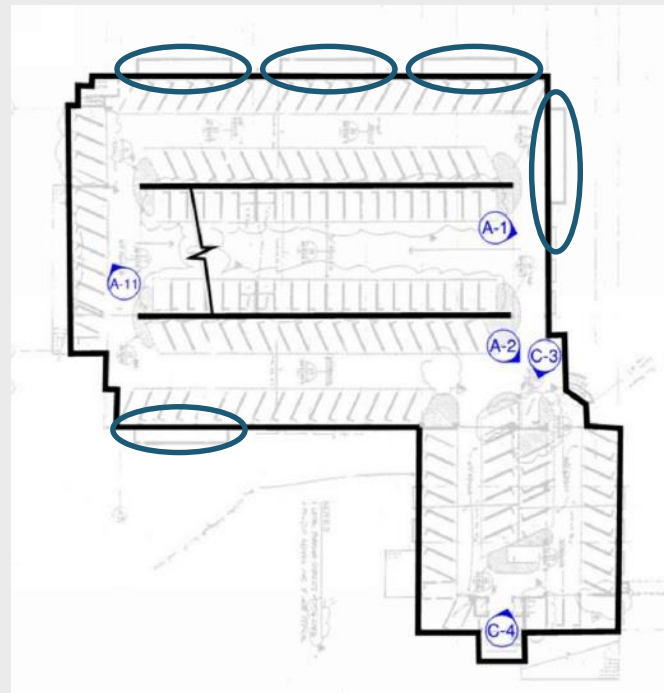
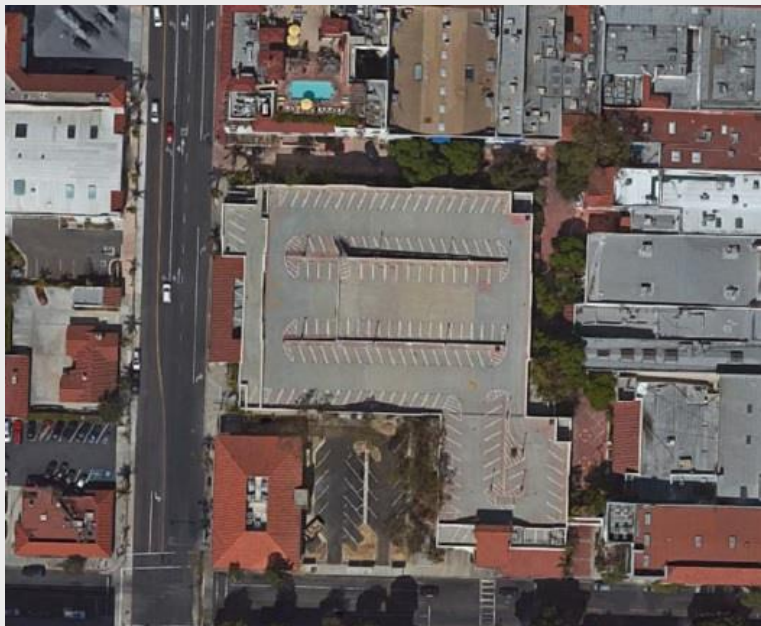
- Typical core sample
- Strength of concrete determined by fracturing cylinders
- Concrete determined to be in generally good condition

## General Testing Procedures – Parking Structures



- Ground Penetrating Radar
- Used to identify density of concrete and location of rebar

## Lot 2, 10 – Barrier Rails



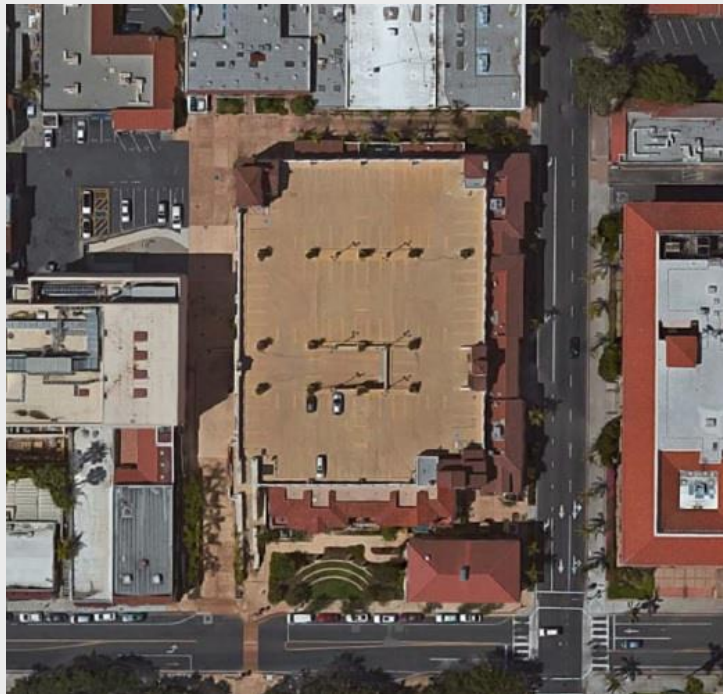


## Lot 2, 10 – Barrier Rails

- Existing balcony rails are not vehicle rated
- Balcony rails do not meet pedestrian guardrail requirements
- Crash tested barrier rails recommended



## Lot 6 – Overall Condition



- Minor repair items
- Structure in very good condition
- Only 10 years old

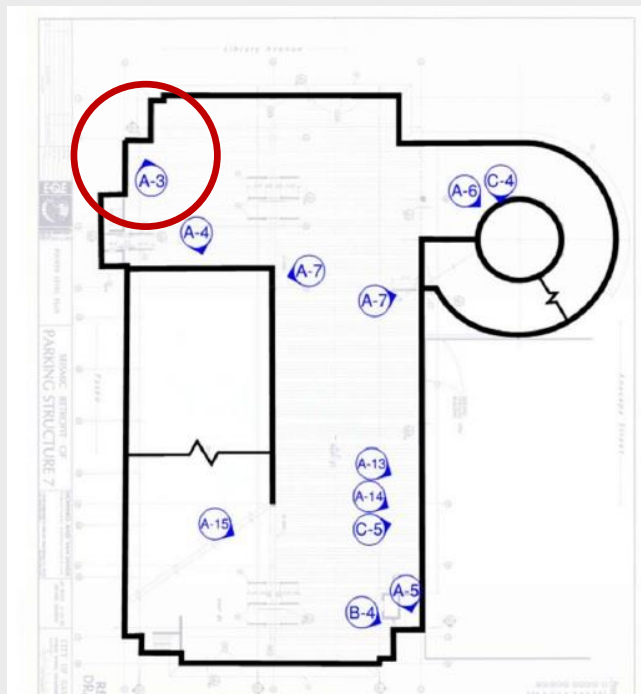
## Lot 7 – Pedestrian Rails



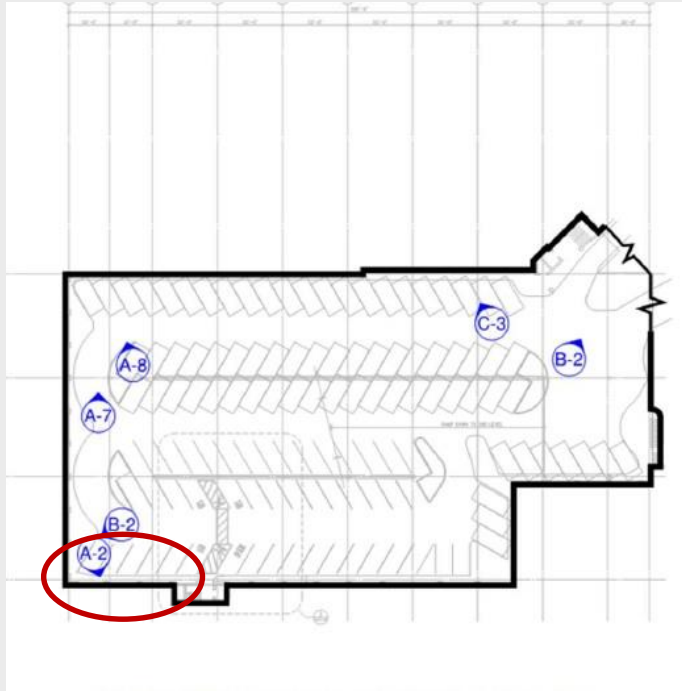
- Some railings were previously retrofit to meet standards



# Lot 7 – Vehicle Rails



# Lot 9 – Pedestrian Rails



# General Testing Procedures – Depot Lot

- Exploratory Openings
  - Carefully opened portions of the built-up roof on the Amtrak Building
  - Examined condition of underlying material



# General Testing Procedures – Depot Lot

- Water testing
  - Nozzle directed water at surface interfaces, observing intrusions over a 15 minute sustained duration



# Amtrak Building – Water Testing

- Water intrusion testing in column at Amtrak Building





## Amtrak Building – Water Absorption Testing



- Low water absorption in walls
- Plaster in overall good condition

# Amtrak Building – Built-Up Roof



# Amtrak Building – Built-Up Roof



# Amtrak Building – Clay Tile Roof



# Amtrak Building – Clay Tile Roof

- Clay Tile Roofs generally in good condition

